

## ABSTRACT

A voice recording and reproducing device employing differential vector quantization divides an input voice signal into frames and predicts the sample values of each frame. The first sample value in a frame is predicted from one or more sample values of the preceding frame. Each predicted sample value is then used in predicting the next sample value in the same frame. For example, the predicted sample values may be fed back into a shift register that is initially loaded with sample values from the preceding frame, and prediction may be carried out by an arithmetic operation on the shift-register contents. This scheme reduces the amount of arithmetic circuitry needed for making the predictions, and reduces the cost of the device.